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A Gigantic Bipinnaria (*B. setoensis*, n. sp.) from Seto

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An extraordinary large bipinnaria was found among the plankton organisms collected by Mr. Y. Saika on January 22 this year from the shore near our laboratory. The body measures 1.2 cm between the level of the tip of the medio-dorsal lobe and that of the tip of the postero-lateral lobe. The anterior portion of the body is prolonged considerably, and provided with a pair of weakly developed longitudinal muscles. The medio-dorsal lobe is shorter than the medio-ventral lobe, and its anterior portion forms a spatulate process with an acute tip. The preoral lobe is very long, and ends in an acute tip. The postoral, postero-lateral and postero-dorsal lobes are also long and lanceolate, while the antero-dorsal lobe is short and somewhat irregularly quadrate. Besides these lobes, the body is provided on the right side with an auricular process at the base of the postero-lateral lobe and also with a long supernumerary lobe between the postero-dorsal and postero-lateral lobes.

The front margin of the mouth groove is strongly convex. The postero-dorsal lobe is situated on the level of this margin; the left postero-lateral lobe and the supernumerary lobe are located on the level of the lateral end of the mouth groove, while the right postero-lateral lobe is found on a much more posterior level. The lobes on the posterior region of the body are placed so close together that their identification is somewhat doubtful.

The alimentary canal shows no peculiarity (fig. 8). The stomach is provided with many spatulate appendages (S. a) each of which is supported by an elongate calcareous spicule of the shape illustrated in Fig. 4. Besides, there are minute conical processes (C. p) scattered all over the stomach; these processes are supported each by a spicule of the shape in figs. 6 and 7. No rudiment of the adult body is found. The body

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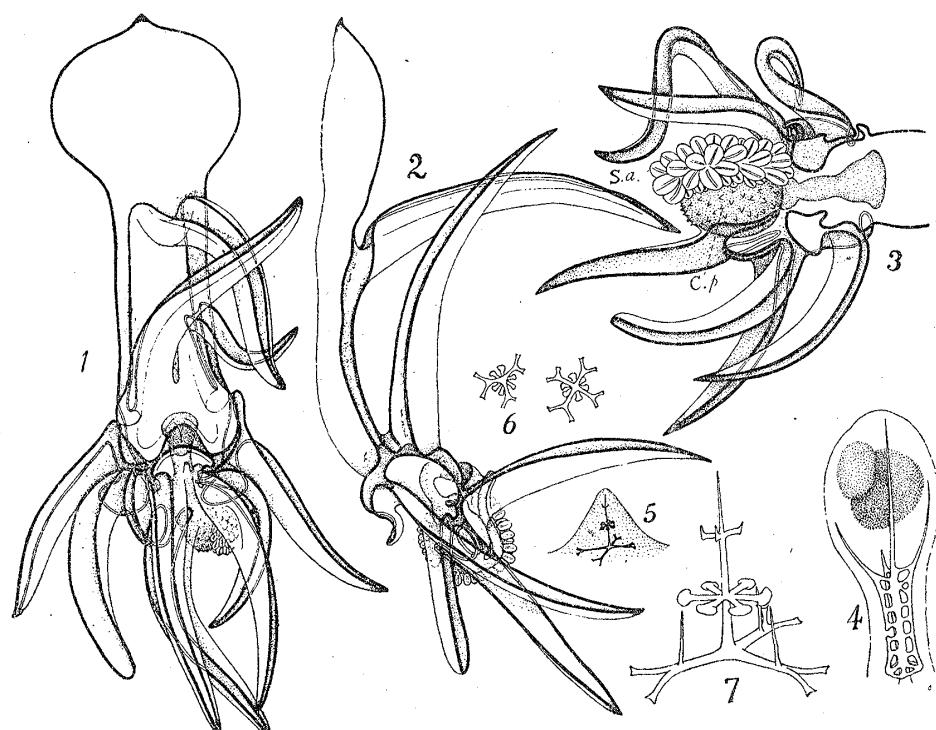


Fig. 1. Ventral view, $\times 7.2$. Fig. 2. View from right side, $\times 7.2$. Fig. 3. Dorsal view of the posterior portion, $\times 15$. Fig. 4. Spatulate appendage on stomach, $\times 114$. Fig. 5. Conical process on stomach, $\times 114$. Fig. 6. Anterior view of the spicule of conical process, $\times 114$. Fig. 7. Lateral view of the spicule of conical process, highly magnified.

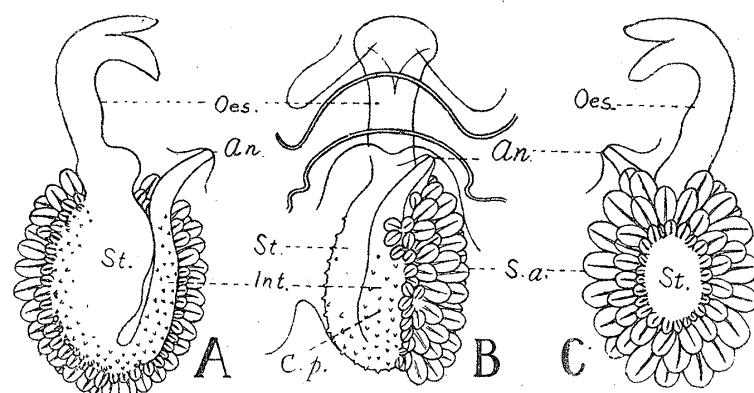


Fig. 8. Alimentary canal viewed from right side (A), ventral side (B) and left side (C): *An.*—anus, *C.p.*—conical processes, *Int.*—intestine, *Oes.*—oesophagus, *S.p.*—spatulate appendages, *St.*—stomach.

is transparent and perfectly colourless, except for the tips of the lobes being bright red, the pinkish stomach, the pale yellow mouth region and the yellowish appendages and processes on the stomach.

There is no doubt that the present bipinnaria is a larva of the seastar of the genus *Luidia*, of which there are in the vicinity of the laboratory two species, *L. quinaria* v. Martens and *L. maculata* Müller and Troschel. Although it is unknown to which of these species the larva belongs, it is certain that it is distinct from all the described bipinnarias. I propose to call the larva *Bipinnaria setoensis*, n. sp. The shape of the mediodorsal lobe and the asymmetrical arrangement of the lobes around the posterior region of the body are the most conspicuous characteristics of the new species.